CORRES. CONTROL
INCOMING LTR NO.

0512943

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DUE
DATE

ACTION

DIST.	LTR	ENC
BERMAN, H.S.		
CARNIVAL, G.J.		
COPP, R.D.		
CORDOVA, R.C.		
DAVIS, J.G.		
FERRERA, D.W.		
FRANZ, W.A.		
HANNI, B.J.		
HEALY, T.J.		
HEDAHL, T.G.	X	X
HILBIG, J.G.		
HUTCHINS, N.M.		
KELL, R.E.		
KIRBY, W.A.		
KUESTER, A.W.		
MAHAFFEY, J.W.		
MANN, H.P.	X	X
MARX, G.E.		
McKENNA, F.G.	X	X
MORGAN, R.V.		
PIZZUTO, V.M.		
POTTER, G.L.		
SANDLIN, N.B.		
SATTERWHITE, D.G.		
SCHUBERT, A.L.		
SETLOCK, G.H.	X	X
STIGER, S.G.	X	X
SULLIVAN, M.T.		
SWANSON, E.R.		
WILKINSON, R.B.	X	X
WILSON, J.M.		
Fiehweg R	X	X
Woldow K	X	X
Ward D	X	X
Levin M	X	X

CORRES CONTROL	x	x
ADMN RECORD/080		
PATS/T130G		

Reviewed for Addressee
Corres. Control RFP

5/6/94 CM
DATE BY

Ref Ltr. #

DOE ORDER # 5400.1

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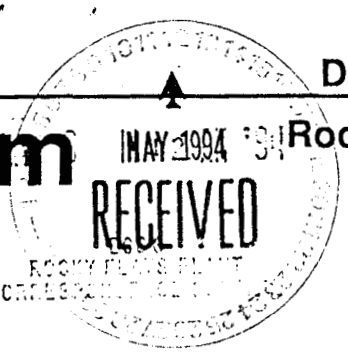
RF-46522 (Rev. 01/94)

States Government **Department of Energy**

Memorandum

Rocky Flats Field Office



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MAY 05 1994

EGD:JAD:02828

EG&G Participation in Colorado Water Quality Control Commission Hearings

S. Stiger, Assoc. Gen. Mgr., Environmental Restoration Management, EG&G Rocky Flats, Inc.
T. Hedahl, Assoc. Gen. Mgr., Environmental and Waste Management, EG&G Rocky Flats, Inc.

The RFFO requests that EG&G scope and budget, for fiscal year 1995, to actively participate in all future Colorado Water Quality Control Commission (CWQCC) water quality standard hearings which may impact Rocky Flats Plant.

The RFFO and EG&G must collect adequate data, and perform legal research to prepare defensible positions to obtain reasonable groundwater and surface water site-specific standards from the CWQCC. Negative impacts from continuing stringent standards may include potential fines for exceeding unrealistically low standards, increased Operable Unit clean-up costs derived from excessively restrictive Applicable, Relevant and Appropriate Requirements, and unneeded capital expenditures for wastewater treatment controls.

Technical groundwater issues are discussed in the attachment. If you have any questions concerning this request, please contact Jon Dion or Ralph Lindberg, of my staff, at extension 5904 or 8285, respectively.

Shirley J. Olinger
Acting Assistant Manager
Environment, Safety & Health

Attachment

cc w/Att:
J. Dion, EGD, RFFO
R. Lindberg, EGD, RFFO
M. Levin, EG&G

Stiger

cc w/o Att:
J. Roberson, ER, RFFO
G. Hill, EGD, RFFO
N. Castaneda, ER, RFFO
D. Ward, EG&G
R. Feihweg, EG&G
K. Woldow, EG&G

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Discussed below are some of the topics which EG&G should consider scoping and adding to the appropriate workpackage(s) to effectively prepare for and participate in CWQCC groundwater standards hearings. Surface water standards issues are not addressed in this attachment, although groundwater and surface water are hydrologically and legally interconnected. The following is not an all-inclusive listing of what may need to be addressed.

Data Assessment. Numerous geochemical and statistical data assessment tasks are required for participation in standards hearings. EG&G should prepare alternative sets of potential groundwater standards based on: ambient downgradient water quality, background water quality, risk-based, PQL-based and national or EPA groundwater quality standards. We should also have an idea of how our existing groundwater quality compares with each of these sets of potential standards.

Misapplication of Surface Water Standards to Groundwater. Arguments should be formulated on the geochemical inappropriateness of applying standards based on ambient surface water quality to RFP groundwater. Arguments can be developed from the longer residence time and higher TDS content of groundwaters versus surface waters.

Realistic Nondegradation Goals. The CWQCC Notice of Final Adoption dated 12/27/93 (page 33, first paragraph) states that the plutonium (Pu) groundwater standard of 0.05 pCi/l is a "nondegradation standard" since it is based on "ambient levels" of Pu in Walnut and Woman Creeks. EG&G might point out that this is untrue for groundwater since ambient levels of Pu in groundwater have not been used to set a groundwater nondegradation standard for the plant.

Use of Background Data. Page 32, paragraph 4 of the CWQCC Notice of Final Adoption dated 12/27/93 (regarding 5CCR1002-8 3.12.0) says that groundwater standards were not set equal to RFP background levels because background is still being established at RFP. Since the Background Geochemical Characterization Program was in fact completed on 9/30/93 arguments should be made for basing future site-specific groundwater standards for naturally-occurring analytes on RFP background groundwater data.

Risk-Based Goals. Compute and propose 10^{-6} or 10^{-4} risk-based goals for manmade substances and nuclides such as Pu and americium (Am) if these goals are higher in magnitude than ambient concentration levels found in Indiana Street wells.

Aseptic Data. Our well installation standard operating procedures are now in doubt regarding the possible spread during drilling of nuclide contamination from surface soils to groundwater. For data credibility at standards hearings, it may be necessary to twin some existing wells using aseptic drilling methods. Statistical testing could then be performed to test for a significant difference in mean analyte concentrations or activities between the paired wells. If there is a statistical difference in means for nuclides, metals, or other analytes, new water quality data will have to be collected aseptically for use in the standards hearings.

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Points of Compliance. Thus far, the CWQCC has chosen not to set "points of compliance" for site-specific groundwater standards, deferring instead to regulatory authorities such as Colorado Department of Health. As suggested in the Well Evaluation Report, we might be proactive and propose the compliance boundary for meeting groundwater standards as the eastern plant boundary along Indiana Street. However, this issue needs to be discussed with RFFO legal staff.

Sampling & Data Averaging. Propose the well sampling frequency and data averaging methodology to be used in establishing RFP compliance with groundwater standards. We may also wish to define the required number of compliance wells, the flow system to be monitored, and approximate well locations for compliance.

Sample Filtration. Arguments should be made for setting radionuclide standards based on filtered groundwater samples, and request clarification from the CWQCC whether existing and proposed groundwater nuclide standards pertain to filtered or total water samples. We must be able to document the effect of sample turbidity on the measured concentrations of naturally occurring substances. Secondly, we must be able to document the unacceptable variability in analyte concentrations between sampling events because of variations in turbidity.

Technological Turbidity Controls. Through field studies and expert witnesses, it may be possible to demonstrate that there is no existing, practical, well installation methodology which will eliminate turbidity in groundwater samples from unconsolidated clay and silt-rich sediments such as those in the upper flow system at Rocky Flats. We may also be able to demonstrate the practical limits of bailers and various low-velocity purging and sampling techniques in controlling sample turbidity.

Maximum Turbidity Limit. If the CWQCC should set unfiltered nuclide standards, EG&G should have a position regarding the maximum turbidity or total suspended solids (TSS) content allowable in a sample to be used for compliance with standards. Samples with TSS or turbidity above these maxima would be excluded from use in determining RFP compliance with groundwater standards.

The RFFO also requests that EG&G make provision for credible, expert witness testimony and provide for adequate legal support before and during the hearings. EG&G will need to coordinate with RFFO legal staff in preparing positions on issues such as points of compliance, and the federal Clean Water Act waiver of sovereign immunity regarding regulation of groundwater at federal facilities.

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